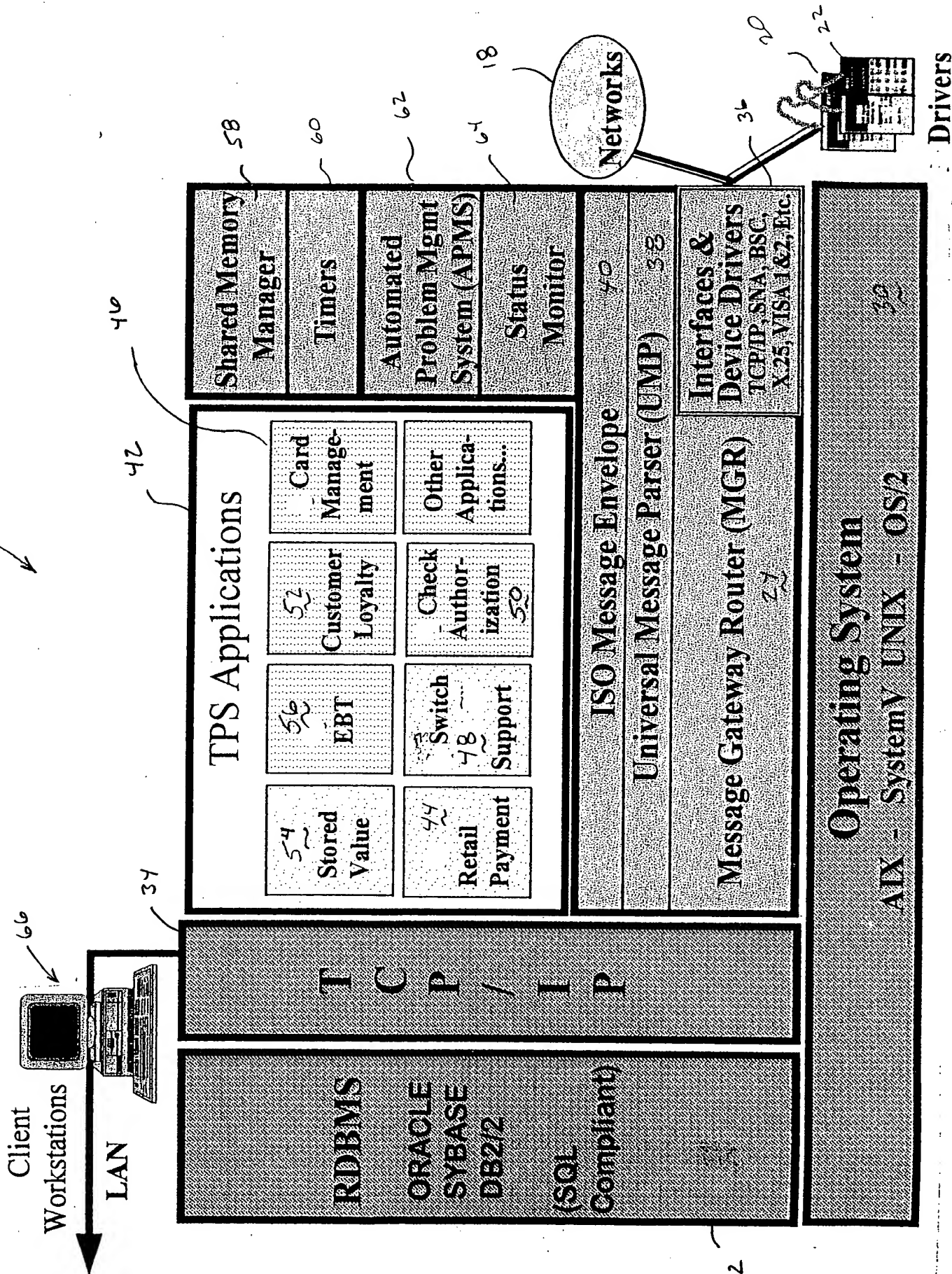


FIG 1

FIG 2



Standard Message Envelope (SME) Format.

1	Header Sid	Header Layout Version	1
2	Source Node Sid	The message originating node system Id.	6
3	Message Receive System Time	The system time in YYYYMMDDHHMISSmmm format.	17
4	Internal Message Sid	Unique system Id of the received message.	4
5	Service Sid	The Message Processing Program (MPP) service system Id, which can process received message.	4
6	Target Node Sid	The message receiving node system Id	6
7	Data Format Indicator (SOURCE)	Message data format type 0 - External Data SOURCE 1 - Internal Data SOURCE	1
8	Message Direction	The direction of message routing.	1
9	Processing Time	Elapsed message processing time in milliseconds.	5
10	Processing Node Sid	The last processing node system Id	6
11	Target Line Node Sid	Line driver node system id. Assigned when terminal is attached to line group.	6
12	Message Text	The message text in ISO8583 format	Variable

FIG 3

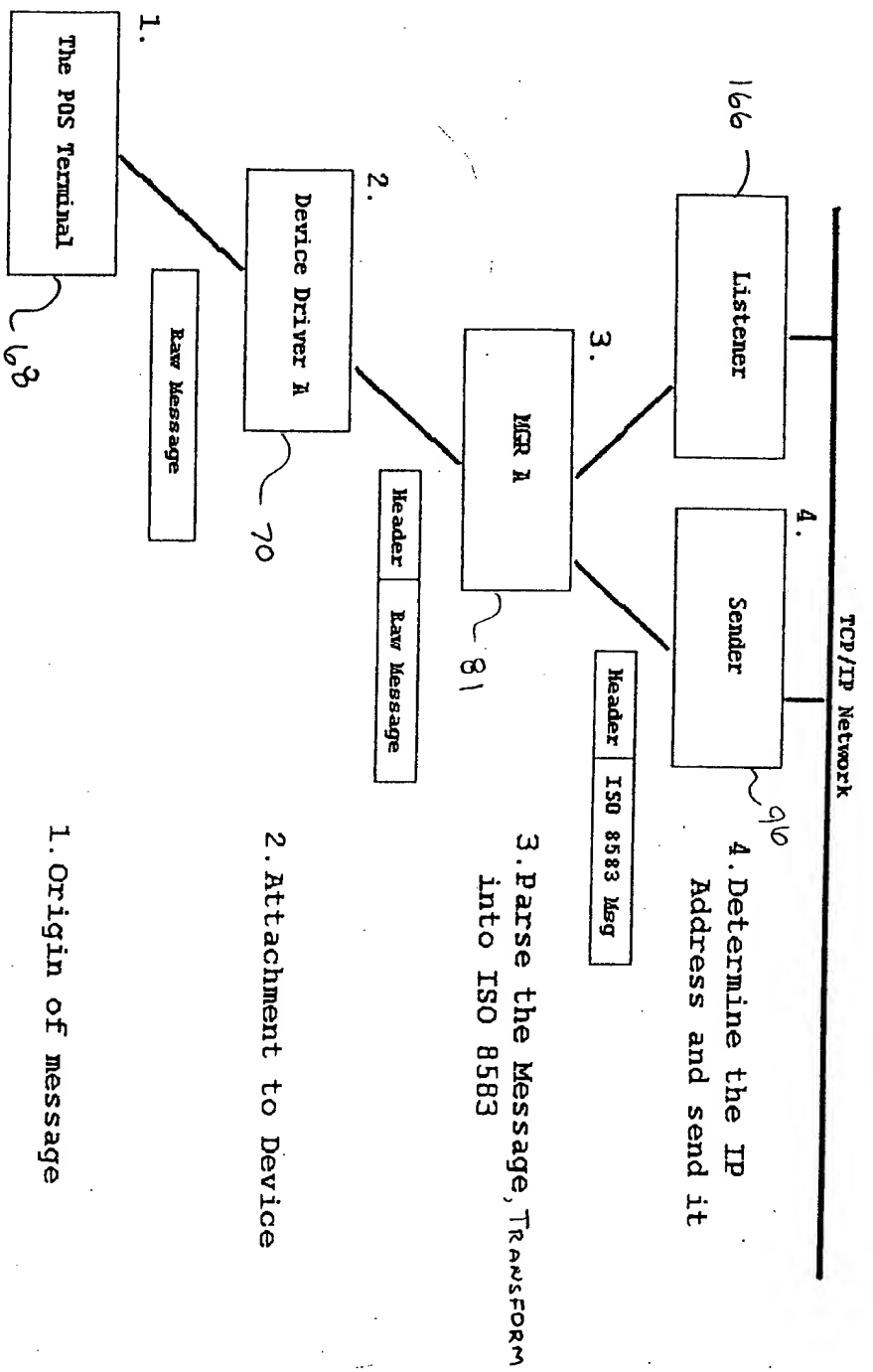


FIG 4

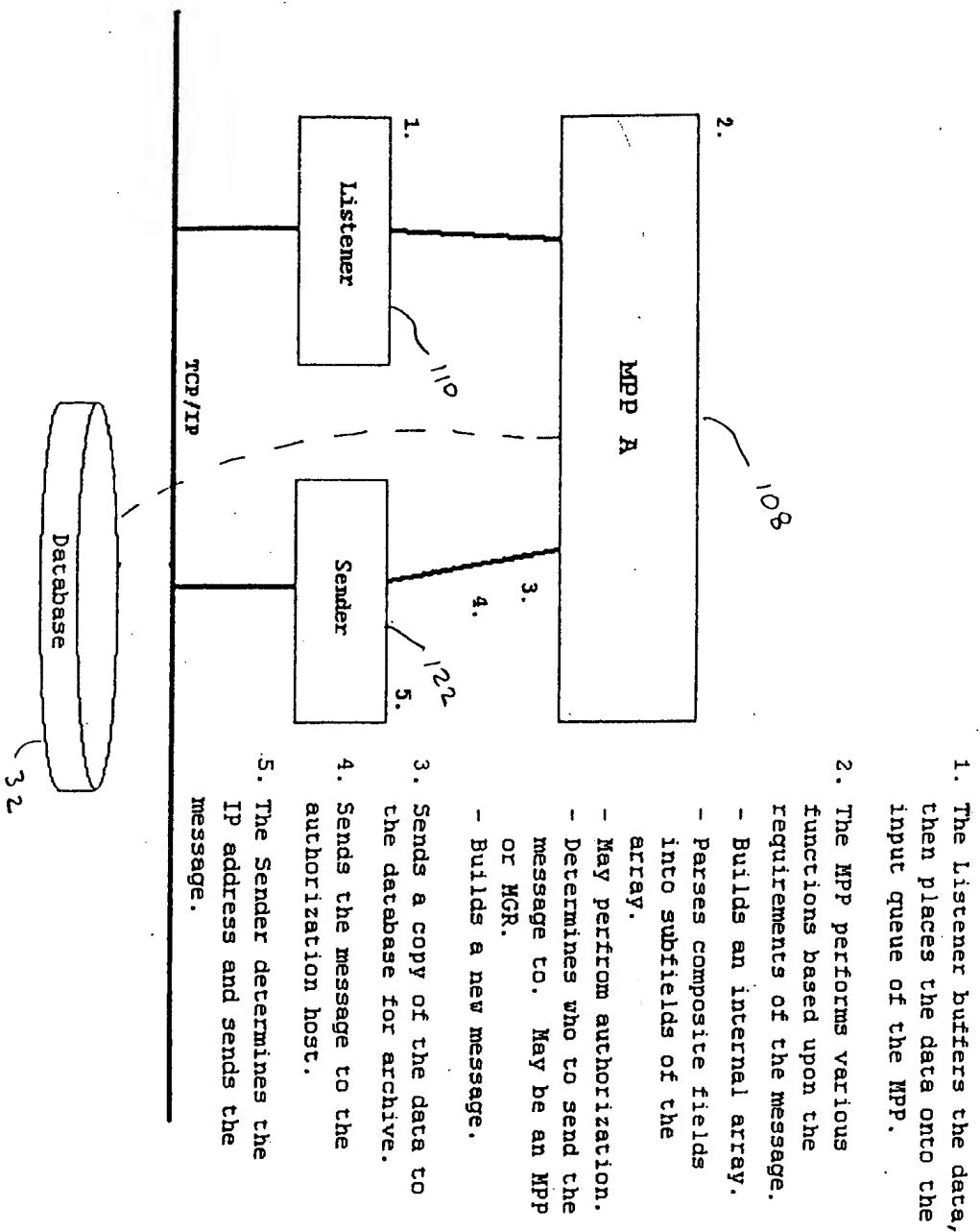


FIG 5

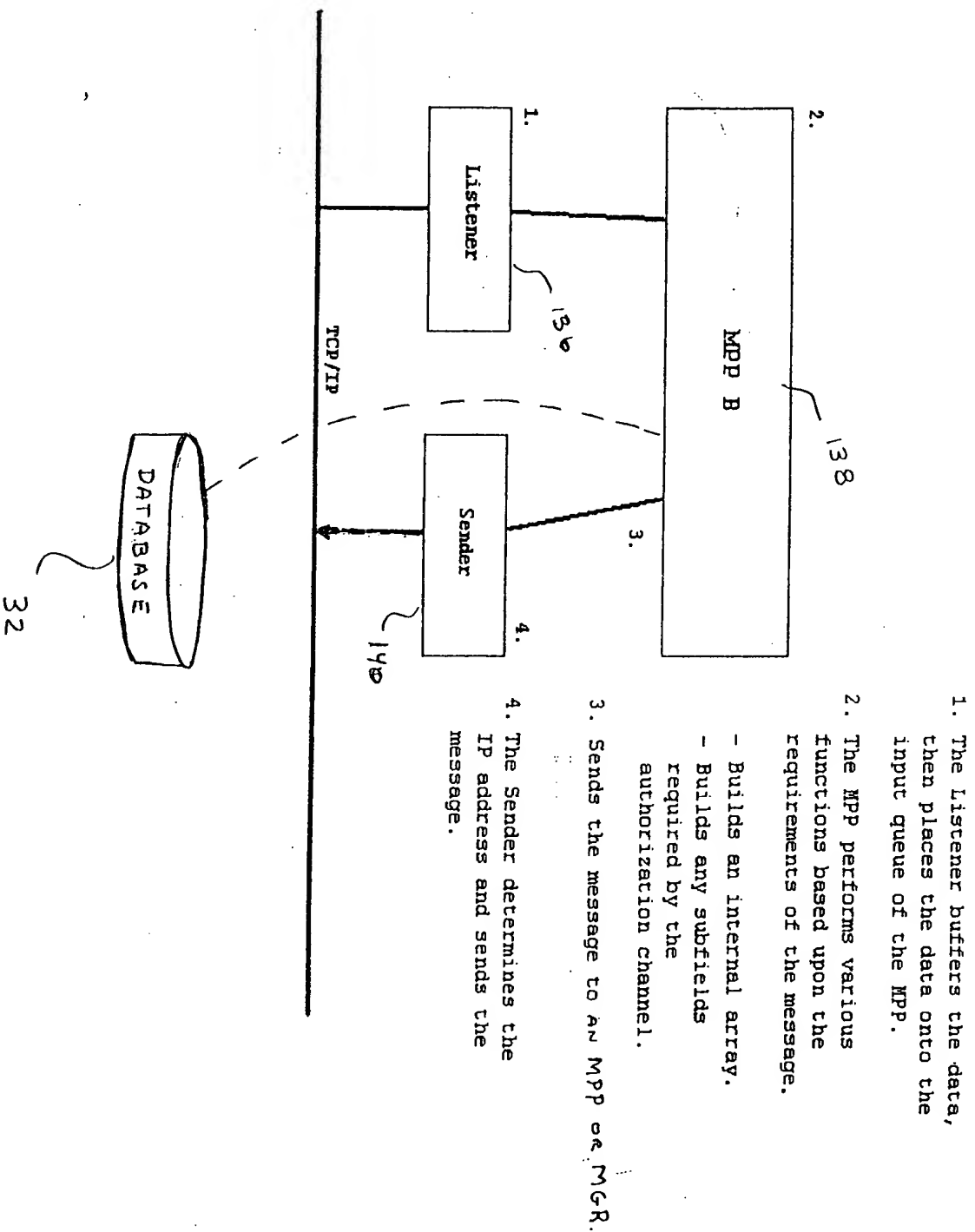


FIG 6

1. The listener buffers the message.
2. The MGR parses the message from ISO 8583 to the required format of the device/service.
3. The Device Driver removes the header and sends the message to the authorizer.
4. The Authorizer returns either an authorization or a denial for the transaction.

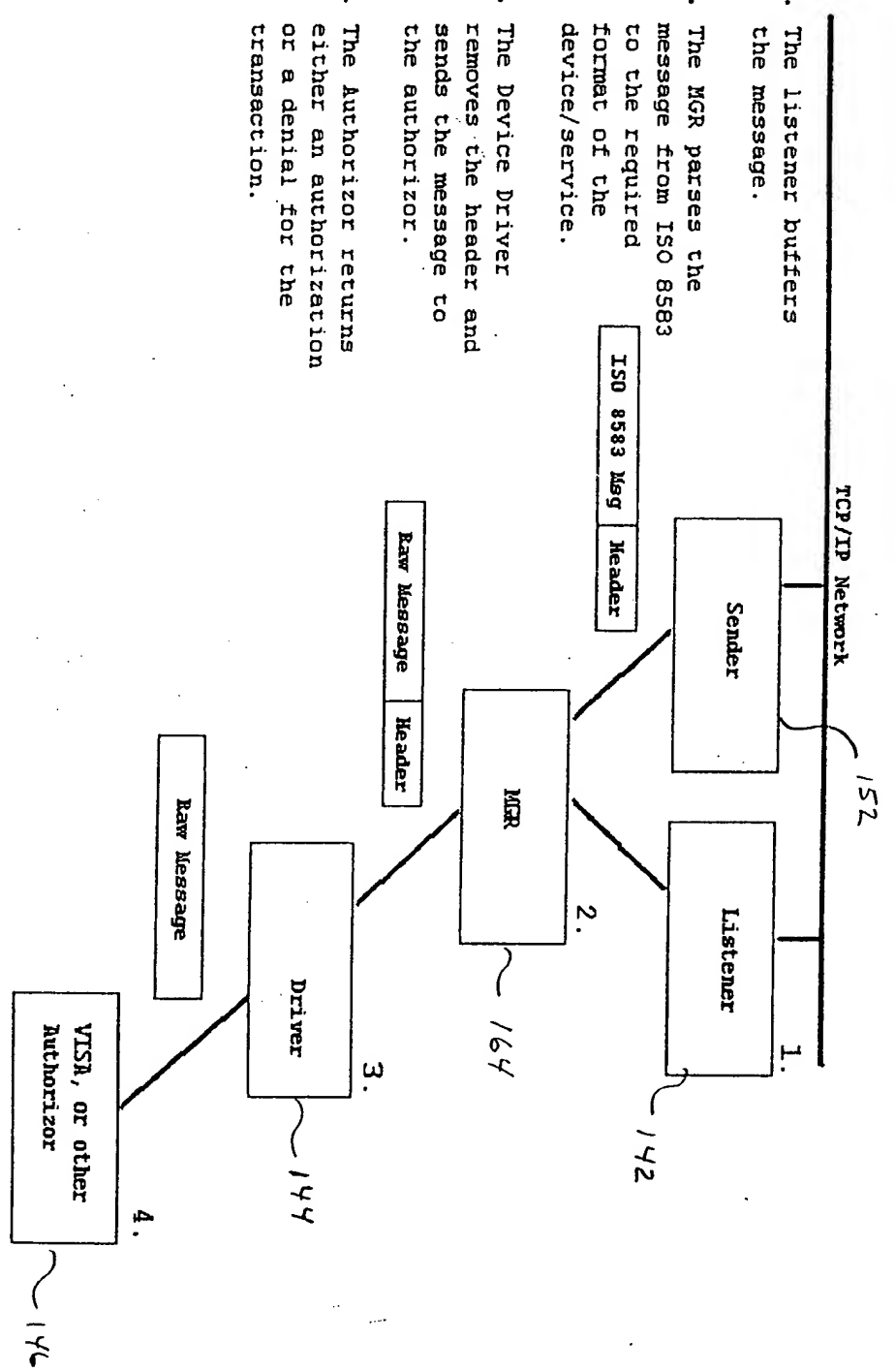


FIG 7

4. The Sender determines the IP address and sends the message.
3. The MGR parses the message from the RAW format to the ISO 8583 message format.
2. The device driver add a header and fills some fields after getting the information directly from the network or host.
1. The authorizer (VISA or other host) returns the message. This represents the actual host/network.

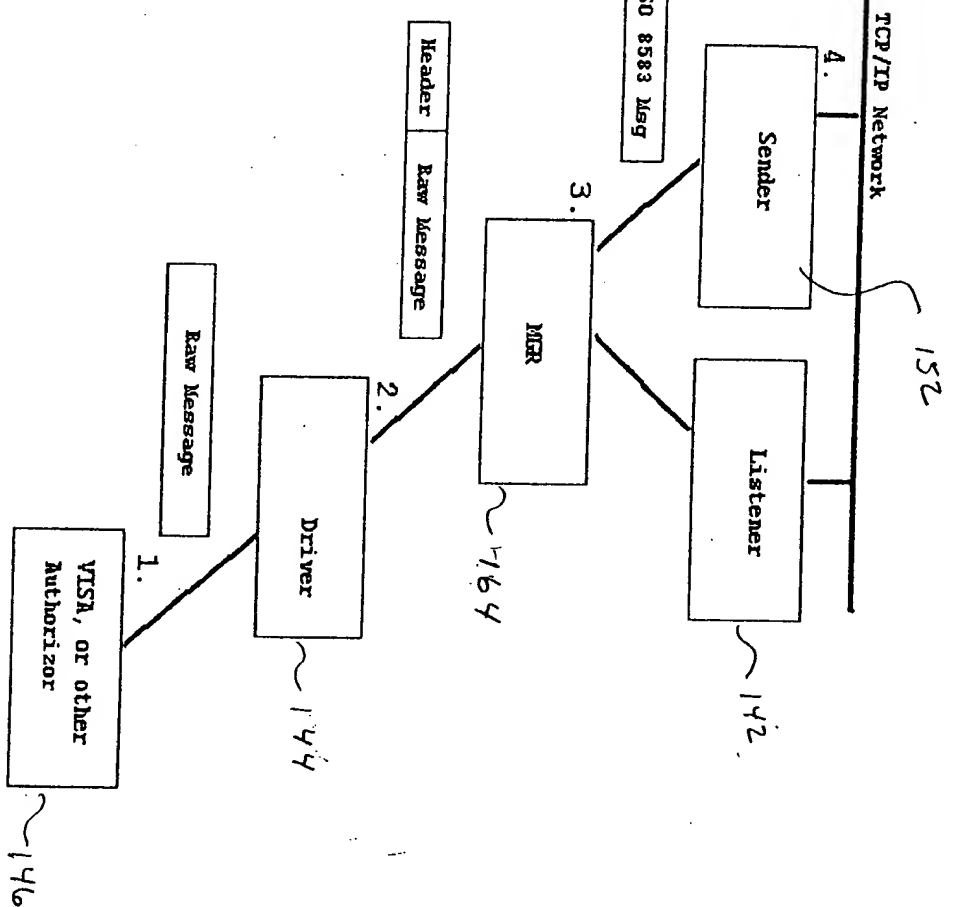
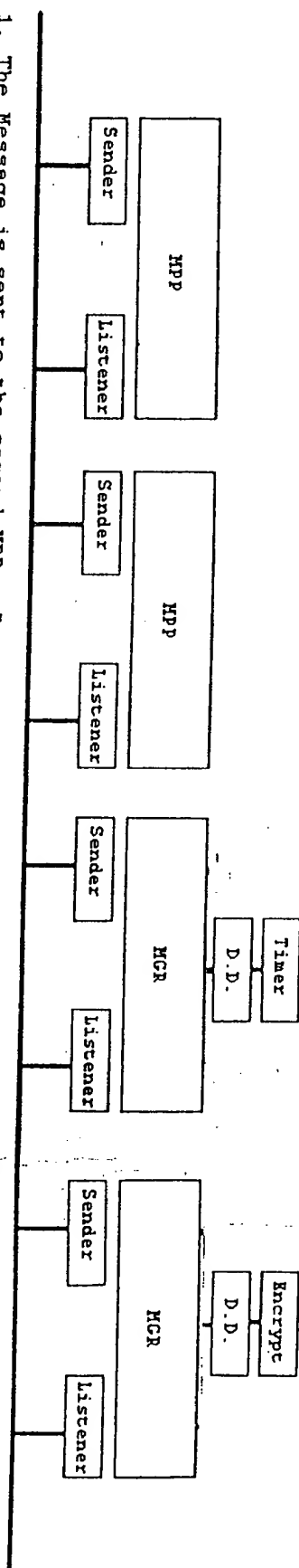


Fig 8

1. The Message is sent to the second MPP. It uses a echo-back field to determine the origin of the message. The database contains the original message with a key. It may send the message to the first MPP by calling the Encryption Device for decryption of the PAN.
2. The message is received by the first MPP. It may need to build special fields, such as track II data. It will then send the message back to the original calling device by using the saved data in the database.



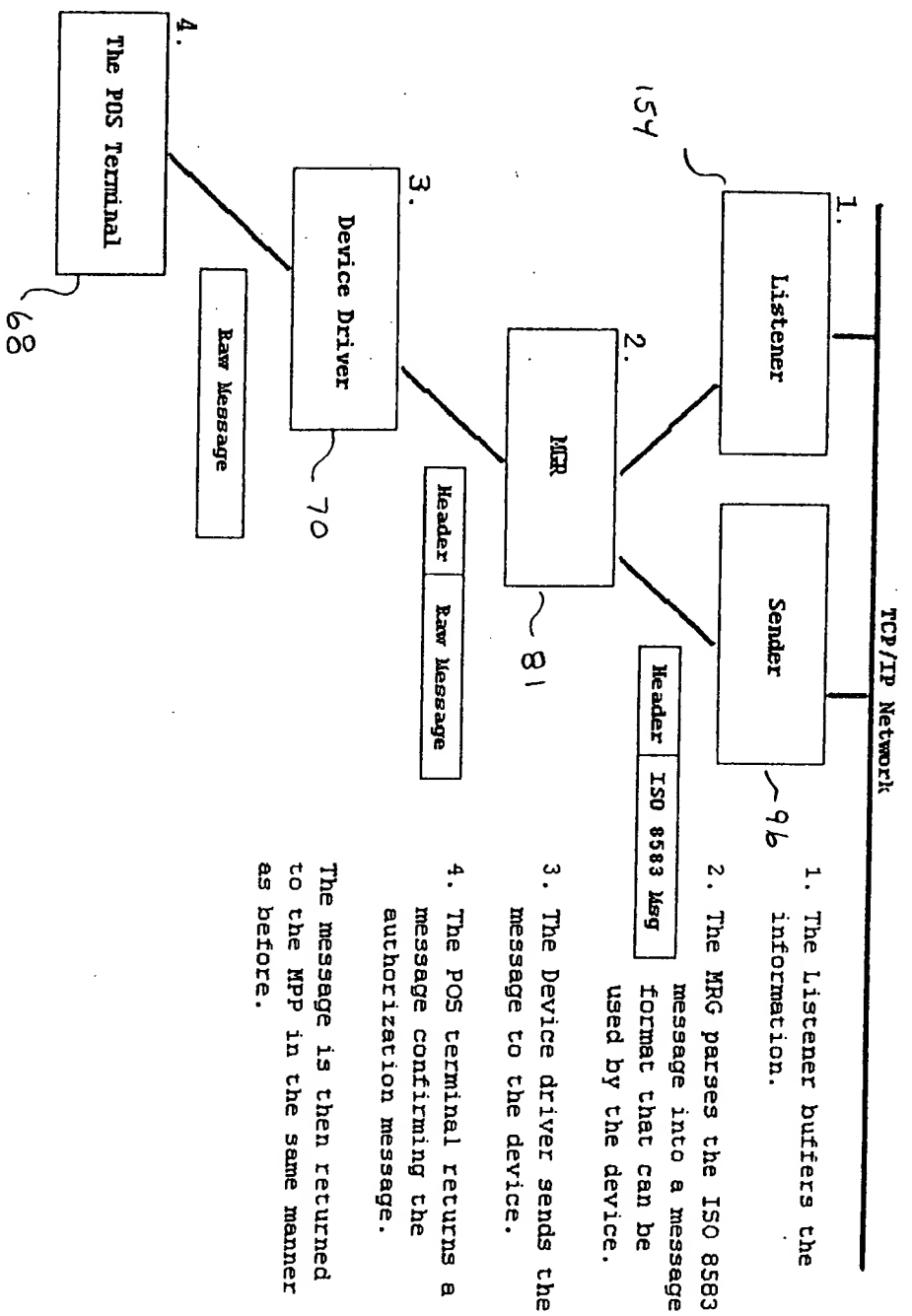


FIG 10

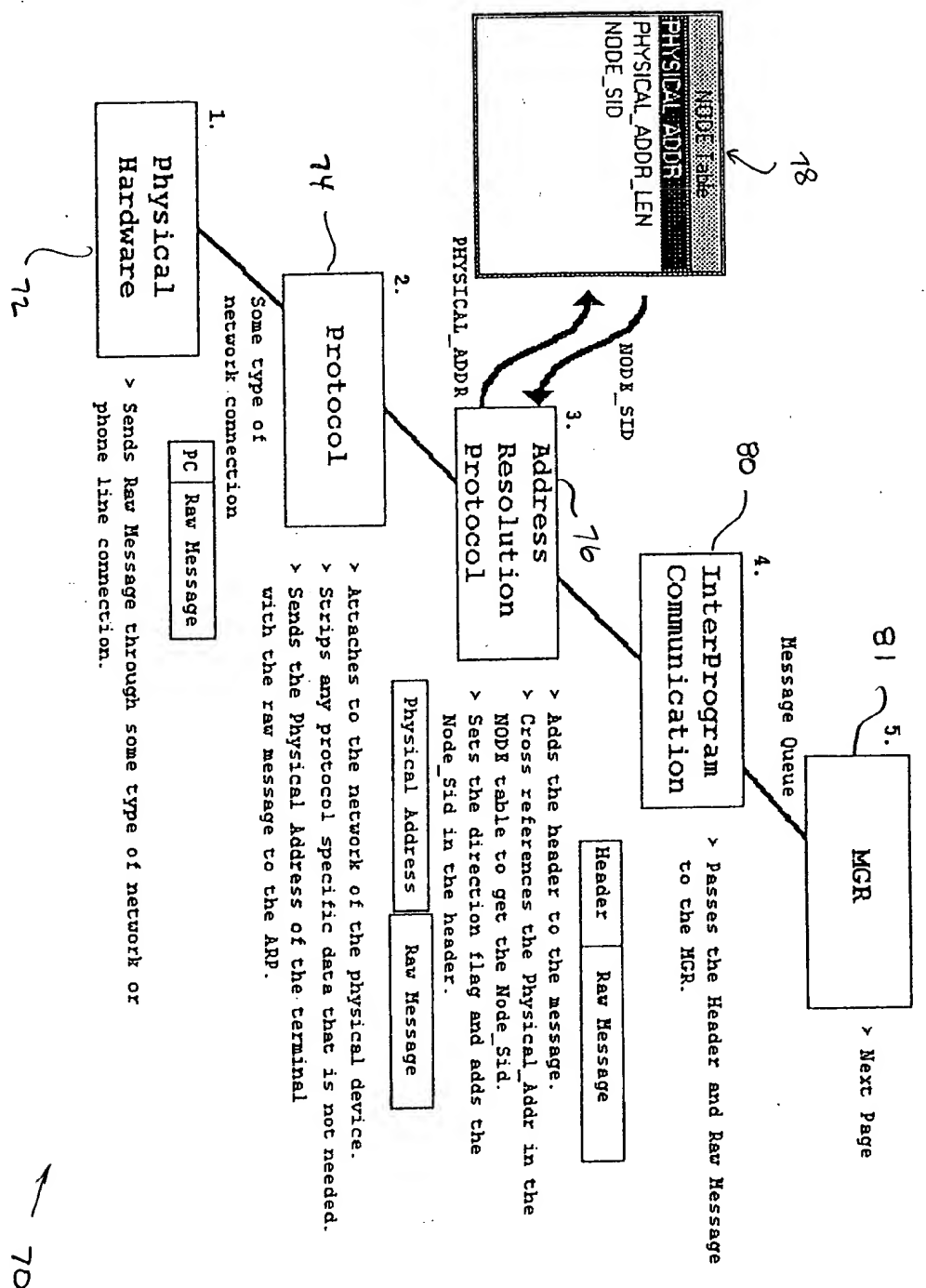


Fig 11

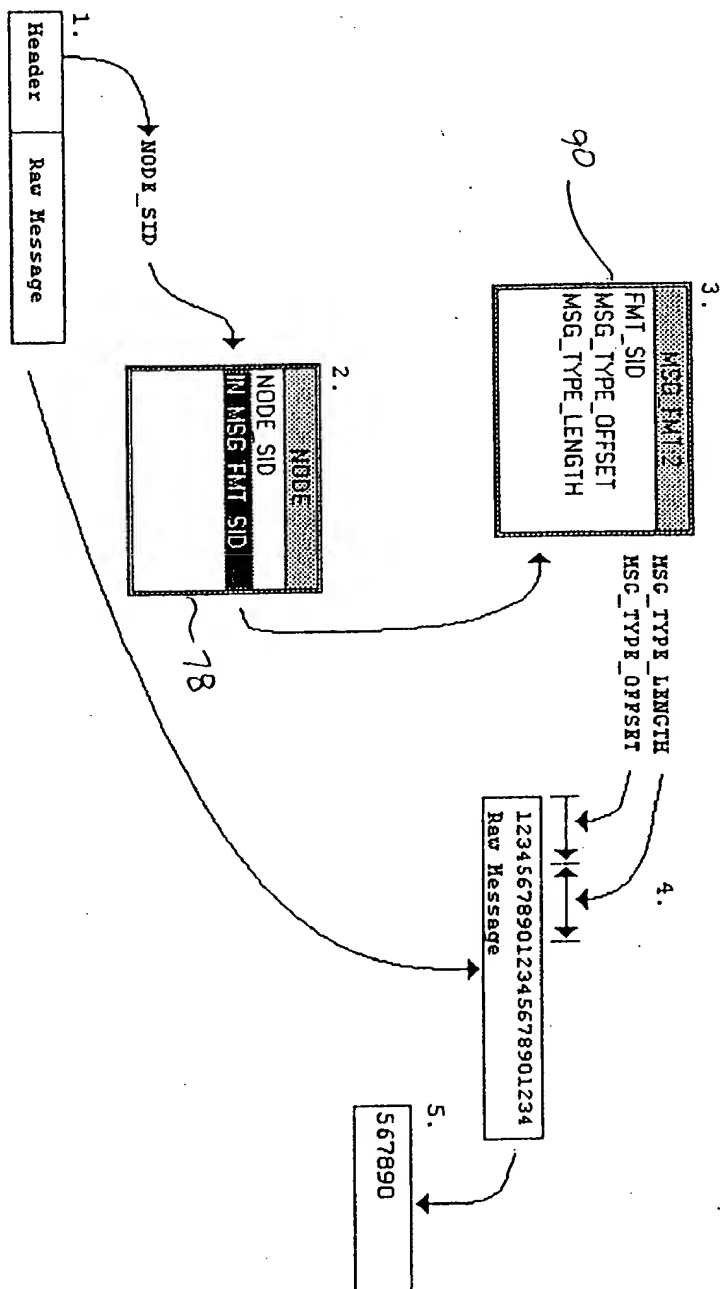
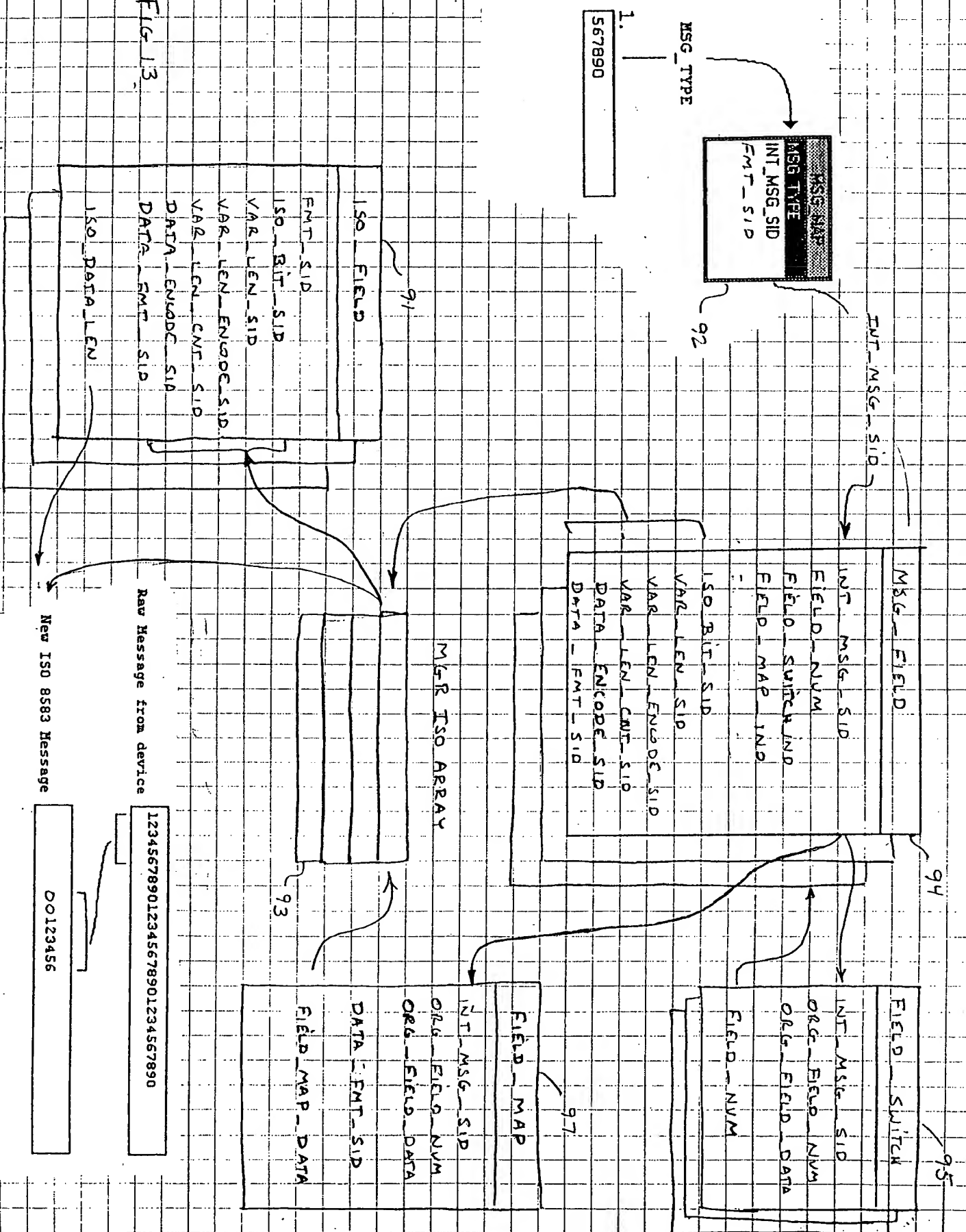


Fig 12



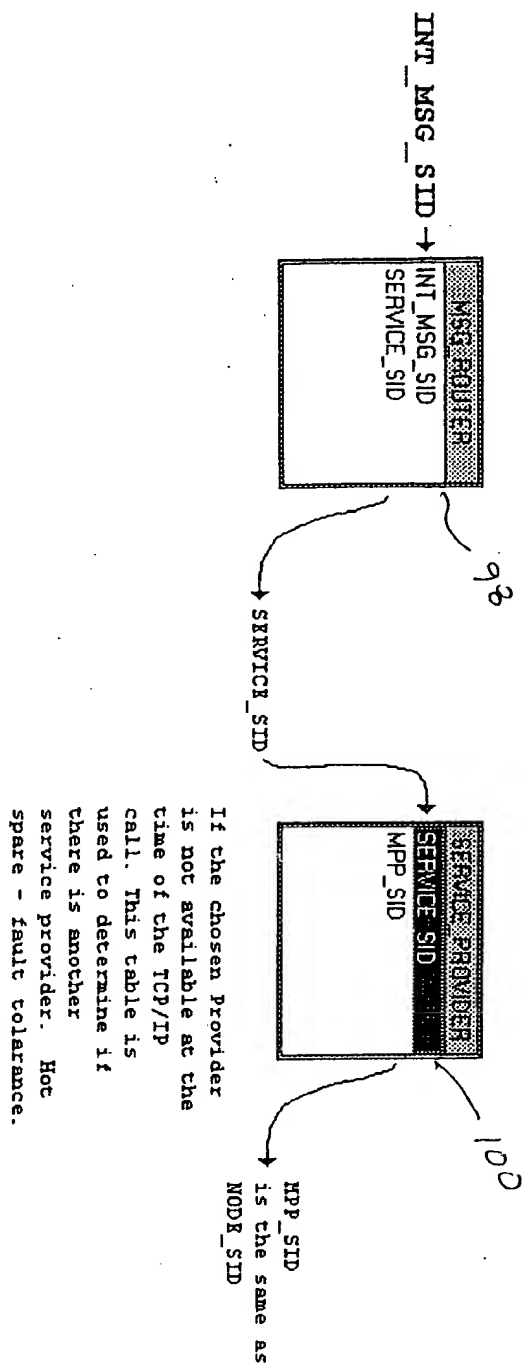


Fig 14

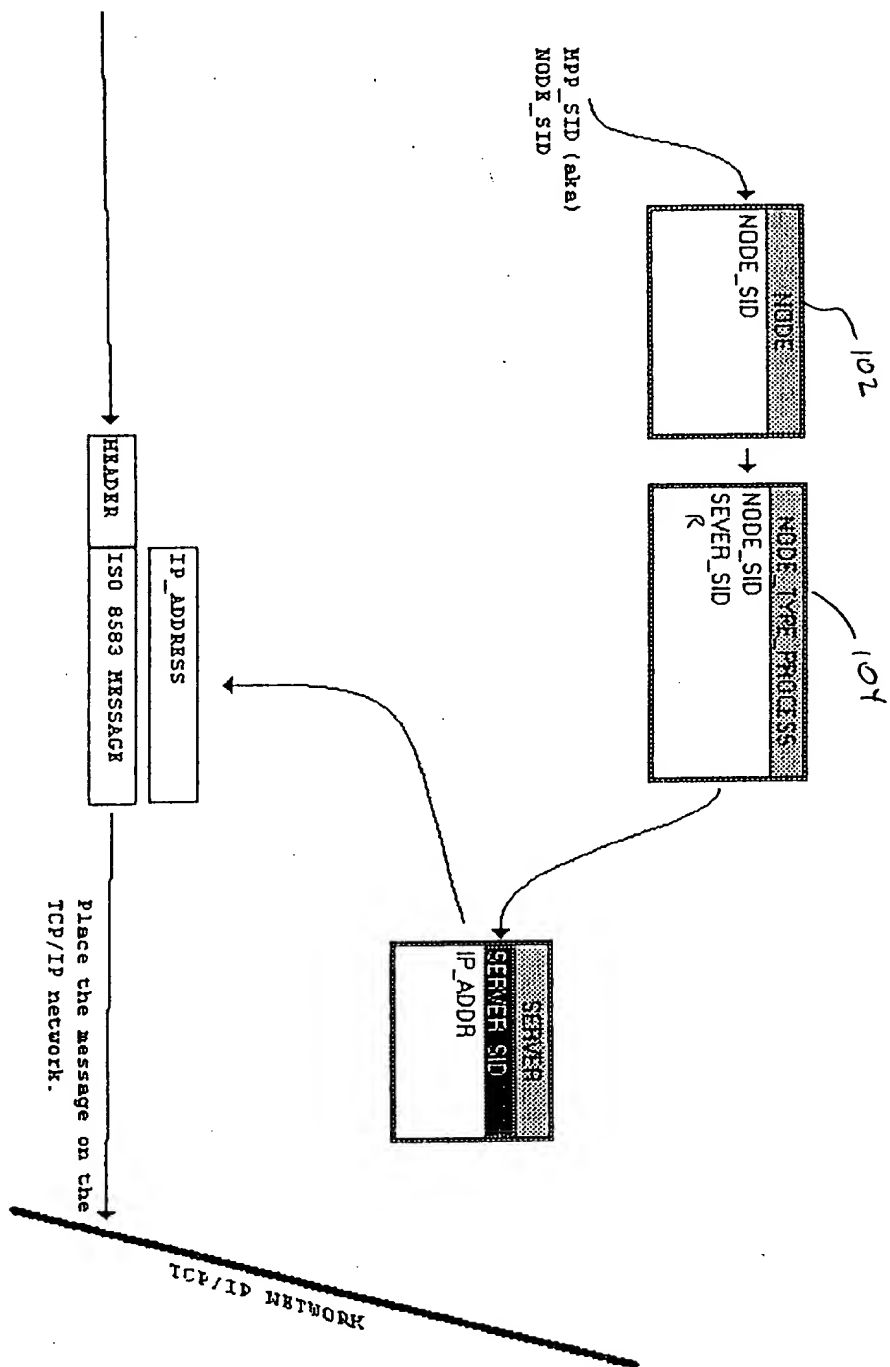


Fig 15

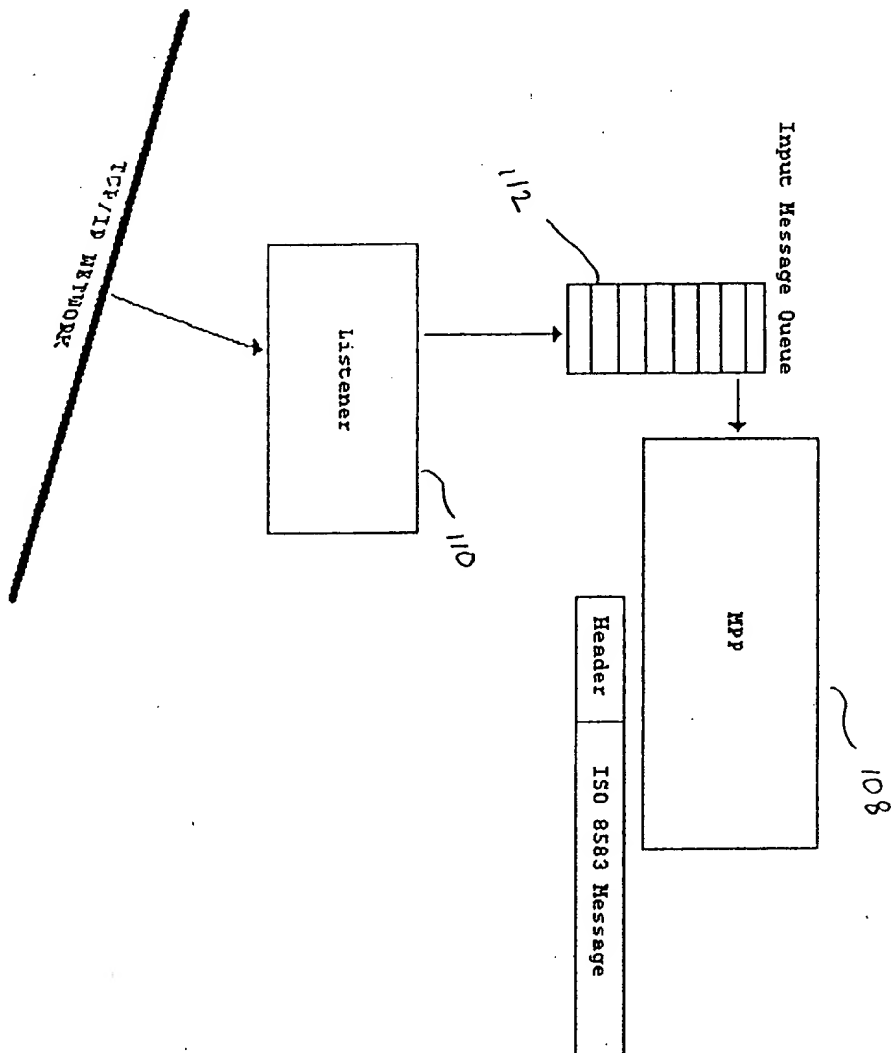


FIG 16

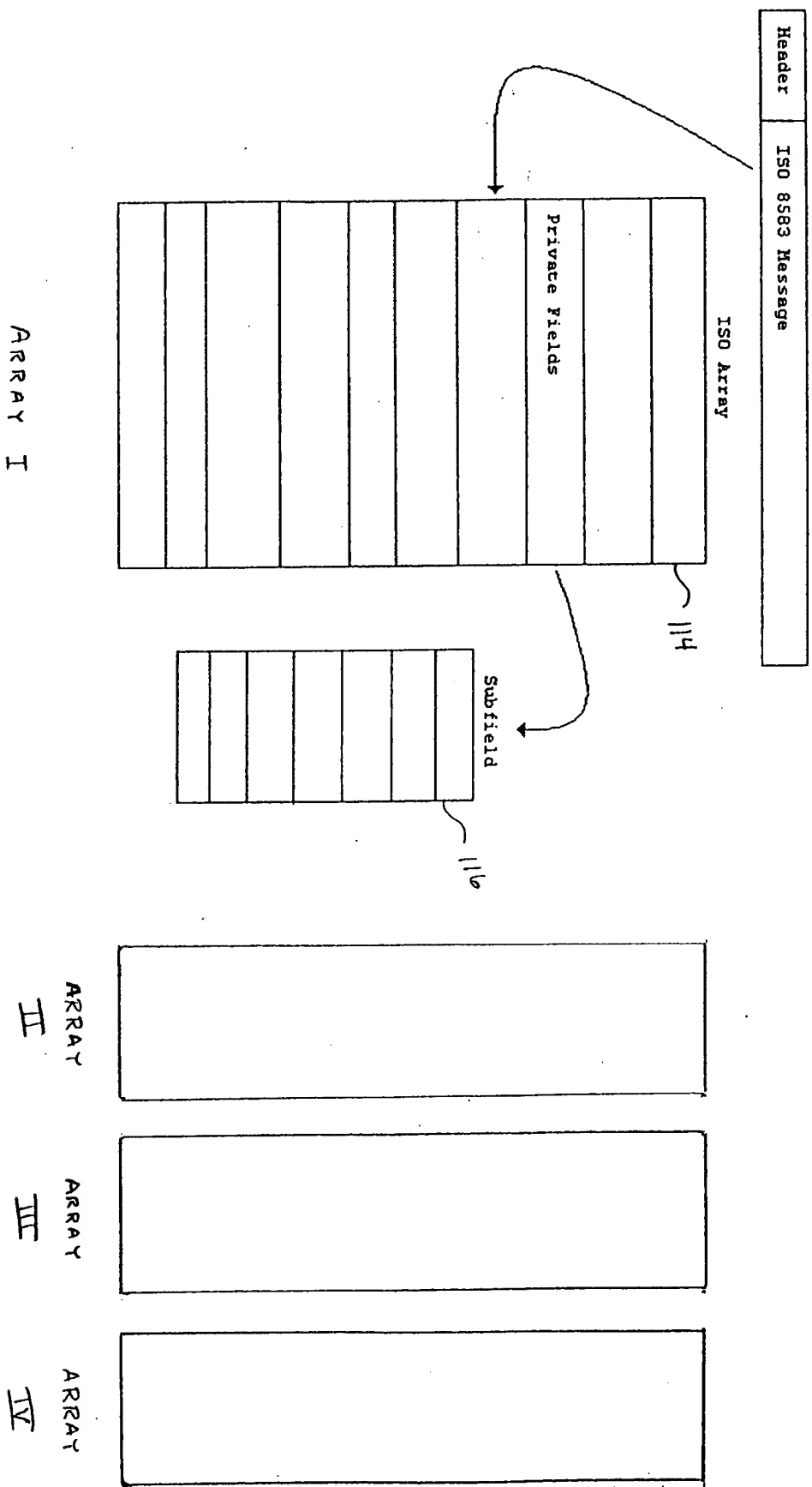
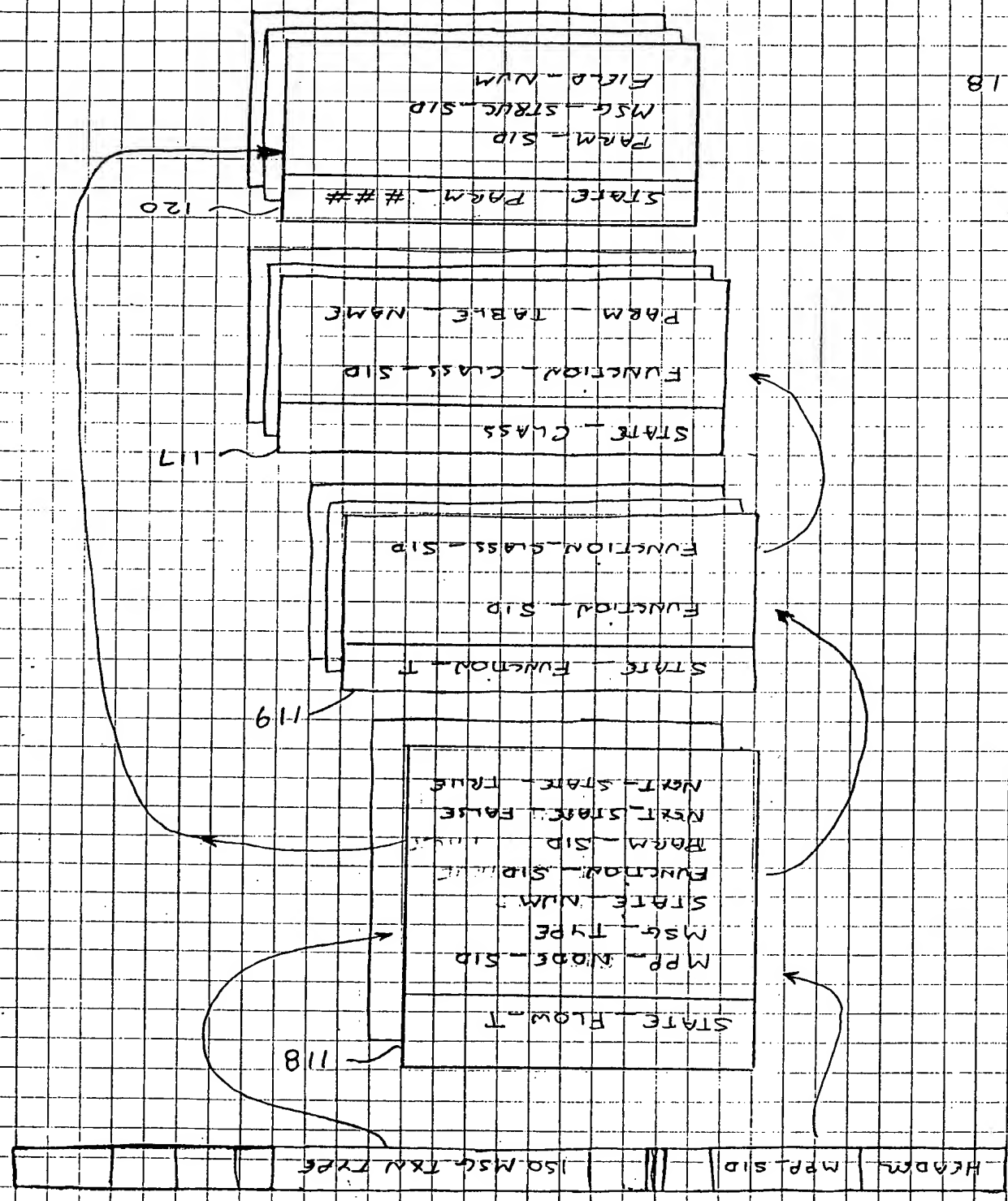


FIG 17

Fig. 18



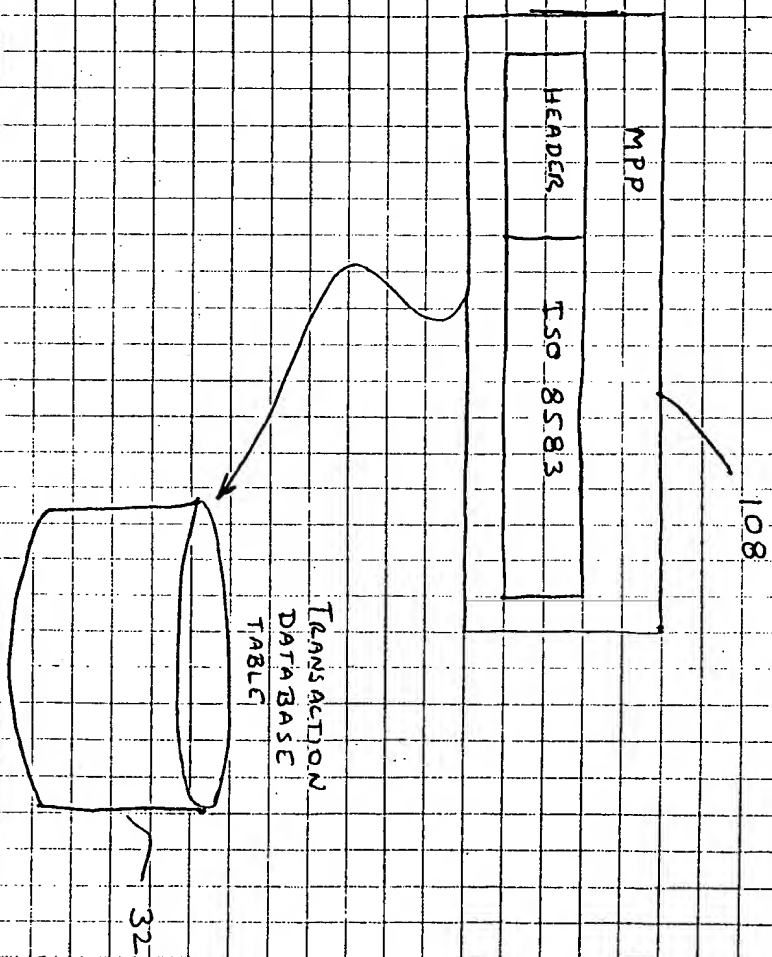


Figure 19

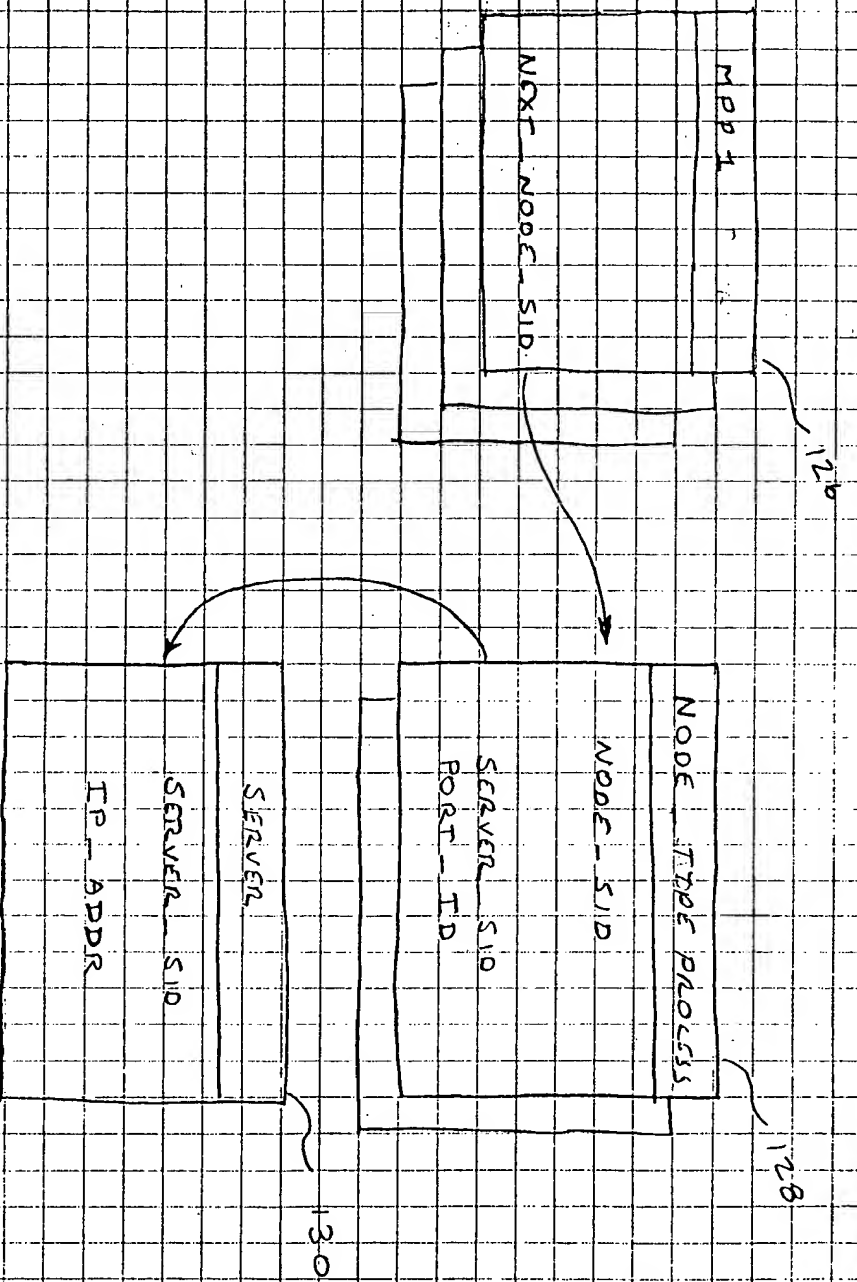


FIG 20

MODE TYPE	
MODE TYPE SID	NUMBER(4)
DESCRIPTION	VARCHAR(250)
DISPLAY_IND	CHAR(1)
	not null
	not null
	not null

```
V_MONITOR_NODE
node_id
node_name
node_type_id
activity_count
sess_start
sess_end_date
```

```
VIEW_ENTITY
node_sid
parent_node_sid
node_type_sid
```

NODE ID		NODE TYPE		ITEM	
TERMINAL	SID	57, 67	75	NUMBER(6)	node, node, node, node
SERIAL	NAME		VARIABLE(20)		
NAME	DATE		DATE		
ACTIVE	DATE		DATE		
LAST	CLERK, IN		NUMBER(2)		
LAST	CLERK, IN		DATE		
FILES	REQ		CHAR(16)		
FILES	CONF		CHAR(16)		
LAST	KEY		NUMBER(8)		
FILE	PROCESS		NUMBER(8)		
FILE	RECORDS		NUMBER(8)		
CONF	RESP		CHAR(1)		
CONF	STATUS		CHAR(2)		
CONF	STATUS	DATE	DATE		
PROFILE	SID		NUMBER(4)		
STIP	AMT		NUMBER(8)		
POOL	SID		NUMBER(8)		
PEDIDO	TERMINAL ID		CHAR(6)		

TERM		TYPE
TERM_ID	<int>	NUMBER(4)
DESCRIPTION		VARCHAR(255)
DISPLAY_IND		CHAR(1)

```

node_model      and
node_model_name
node_model_type and
node_description
term_type_description device_description
node_location
node_name
node_session
node_session_status
node_session_name
node_session_status
node_session_status_date

node_type_term
term_type
node_type

```

NEW_TERM
node.parent_node sid node.nodes sid node.in_msg_fm sid out_term_type sid node.out_msg_fm sid node.nodes_type sid node_type term nt

[illegible]

MODE SID	MODE SID	MODE TYPE LINE
LINE TYPE_SID	NUMBER(16)	not null
MODE_NUM	NUMBER(4)	not null
LINE_GRP_MODE_SID	VARCHAR(15)	not null
DRIVER_NAME	NUMBER(6)	not null
PROCESS_PRIORITY	VARCHAR(20)	not null
PORT_DEVICE_NAME	NUMBER(7)	not null
PORT_NUMBER	VARCHAR(20)	not null
CCT_ID	NUMBER(4)	not null
COMA_CONNECTION	CHAR(1)	not null
COMA_TUNING	CHAR(1)	not null
COMA_NETWORK	CHAR(2)	not null
COMA_PROTOCOL	CHAR(2)	not null
REMOTE_SND_TYPE	CHAR(1)	not null
LINK_ROLE	CHAR(1)	not null
POLL_ADDR	CHAR(2)	not null
LI_NAME	VARCHAR(20)	not null
LI_CNT	NUMBER(4)	not null
MAX_RETRY	NUMBER(4)	not null
TIME_OUT_RETRY	NUMBER(4)	not null
MODEM_SID	NUMBER(4)	not null
SPEED	NUMBER(8)	not null
PARITY	CHAR(1)	not null
DATA_BITS	NUMBER(1)	not null
STOP_BITS	NUMBER(1)	not null
BAUDING	NUMBER(4)	not null
FLOW	CHAR(1)	not null
FILE_JOB_LOG_SID	NUMBER(4)	not null
FILE_UPLOAD_DIR	VARCHAR(20)	not null

LINE	TYPE	SID	CHG	NUMBER(4)	NOT PAID
	DESCRIPTION			VARCHAR(20)	NOT PAID
	DISPLAY	IND		CHAR(1)	NOT PAID

MODE SID		MODE TYPE PROCESS	
PROCESS TYPE_SID	CALLBACK	NUMBER(10)	not null
SERVER SID	NUMBER(10)	not null	
IP PORT_ID	NUMBER(10)	not null	
MAX_THREAO	NUMBER(10)	not null	
MAX_THREAO	NUMBER(10)	not null	
PROCESS PRIORITY	NUMBER(10)	not null	
DEVICE TYPE	CHAR(1)	not null	
SERVER NAME	VARCHAR(200)	not null	
SERVER NAME	VARCHAR(200)	not null	
CONTEXT NAME	VARCHAR(200)	not null	
EP_PRIORITY	NUMBER(10)	not null	
SWARM_MODE_SID	NUMBER(10)	not null	
CTRL_NAME	VARCHAR(200)	not null	

PROCESS_TYPE	
PROCESS_TYPE_SID	NUMBER(4)
DESCRIPTION	VARCHAR2(20)
DISPLAY_IND	CHAR(1)

WOMEN

[illegible]

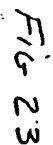
VIEW PROCESSES					
no_name_id		NUMBER(8)			
pl_description		VARCHAR(20)			
no_owner_name		VARCHAR(20)			
no_driver_name		VARCHAR(20)			
no_device_name		VARCHAR(20)			
no_port_id		NUMBER(4)			
no_session_id		NUMBER(4)			
no_session_mode_id		NUMBER(4)			
no_crt_name		VARCHAR(20)			
no_device_type_id					
no_serial_node_id					
node_sess_title		NUMBER(4)			
no_process_name_id					
node_attrn					
node_type					
process_type_id					

[illegible]

VIEW: Exp	
no_process_id	NUMBER(6)
lso_addr	VARCHAR(20)
no_process_priority	NUMBER(2)
no_driver_name	VARCHAR(20)
o_app_priority	
no_driver_name	VARCHAR(20)

VIEW MAPS	
node_name, set_name, and node_name, run_map, name	VASICHA-2200
server_id, job	NUMBER6
node_id, job, port_id	NUMBER6
node_name, server	NUMBER6
node_name, server	NUMBER6
node_name, job	VASICHA-2200
node_name, job, name	VASICHA-2200
node_name, name	VASICHA-2200
node_name, name	VASICHA-2200
server	
node, job, process, no	

```
VIEW EPP_ADDR
  ntd_node_id NUMBER(6)
  server_ip_addr VARCHAR2(20)
  0 epp_priority
  1 server
  2 node_type_process ntd
```

SYSTEM_PARAM	
SYSTEM_PARAM_SID	<pk> NUMBER(4) not null
PARAMETER	<pk> VARCHAR2(10) not null
VALUE	VARCHAR2(20) not null
FMT	VARCHAR2(10) not null
STATUS	CHAR(1) not null
STATUS_DATE	DATE not null
DESCRIPTION	VARCHAR2(30) not null

STATUS_REASON	
TABLE_NAME	<pk> VARCHAR2(20) not null
STATUS_VALUE	<pk> CHAR(1) not null
REASON_NUM	<pk> NUMBER(2) not null

COL_VALUE	
TABLE_NAME	<pk> VARCHAR2(20) not null
COLUMN_NAME	<pk> VARCHAR2(20) not null
COLUMN_OFFSET	<pk> NUMBER(2) not null
COLUMN_VALUE	<pk> VARCHAR2(3) not null
DESCRIPTION	VARCHAR2(30) not null

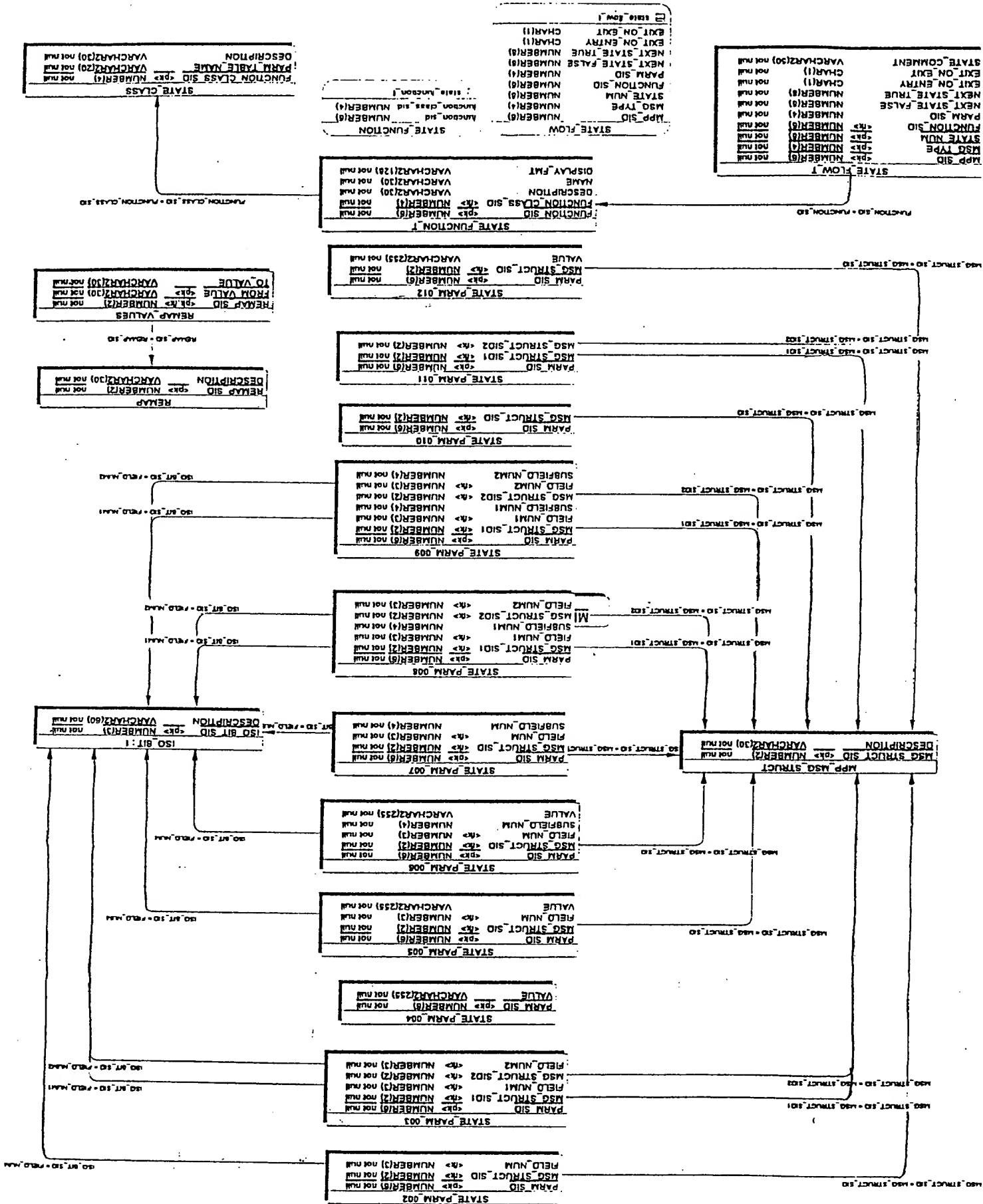
SERVER	
SERVER_SID	<pk> NUMBER(6) not null
NAME	VARCHAR2(20) not null
IP_ADDR	VARCHAR2(20) not null

SERVER_30 = SERVER_30

SERVER_HOST_LINK	
SERVER_SID	<pk> NUMBER(6) not null
HOST_SID	<pk> NUMBER(6) not null
PRIORITY	NUMBER(2) null

EXTERNAL_HOST	
HOST_SID	<pk> NUMBER(6) not null
HOST_NUM	VARCHAR2(15) null
NAME	VARCHAR2(30) null
ADDR	VARCHAR2(30) null
CITY	VARCHAR2(20) null
STATE	CHAR(2) null
COUNTRY_CODE	CHAR(1) null
ZIP_CODE	CHAR(9) null
CONTACT_NAME	VARCHAR2(30) null
TELEPHONE	VARCHAR2(16) null
MODE_SID	NUMBER(6) null
COMMENTS	VARCHAR2(30) null
STATUS	CHAR(1) null
STATUS_DATE	DATE null

FIG 24



CARD_SID	CARD_TYPE
NUMBER(4)	not null
DESCRIPTION	VARCHAR2(30) not null

CARD_SID = CARD_SID
ACC_SID = ACC_SID

ACCOUNT_TYPE
ACC_SID
DESCRIPTION
CARD_SID
BANK_ABBR
REPORT_ABBR
ACC_LEN
BIN_LEN
LOW_BIN_NUM
HIGH_BIN_NUM
POOL_SID
STATUS

BIN_NUM	BIN_ACCEPTED
AUTH_NODE_SID	NUMBER(6) not null
STP_AMT	NUMBER(6) null
BIN_LEN	NUMBER(2) not null
DESCRIPTION	VARCHAR2(30) null

PAN	CLIENT_PAN
MEMBER_NUM	NUMBER(10) not null
CLIENT_SID	NUMBER(3) not null
EXP_DATE	DATE
TRACK_DATA	VARCHAR2(76) null
CARD_SID	NUMBER(4) null
ACC_SID	NUMBER(6) null
STATUS	CHAR(3) not null
REASON_MASK	CHAR(10) not null
STATUS_DATE	DATE
APPROVAL_SID	NUMBER(6) not null
ACTIV_DATE	DATE
FIRST_DATE	DATE
FIRST_LOCN_SID	NUMBER(6) null
LAST_NODE_SID	NUMBER(6) null
LAST_LOCN_SID	DATE
CHK_CNT	NUMBER(4) null
CHK_AMT	NUMBER(4) null
STP_CNT	NUMBER(6) null
STP_AMT	NUMBER(6) null
AUTH_ID_RESP_SEQ	CHAR(6) null
LTD_CNT	NUMBER(6) null
FIRST_INV_PIN_DATE	DATE
FIRST_INV_PIN_LOCN_SID	NUMBER(6) null
LAST_INV_PIN_DATE	DATE
LAST_INV_PIN_LOCN_SID	NUMBER(6) null
LTD_INV_PIN_CNT	NUMBER(6) null

PAN	PAN_NEGATIVE
MEMBER_NUM	NUMBER(10) not null
EXP_DATE	DATE
RESP_CODE	DATE
ADD_RESP_DATA	CHAR(2) null
AUTH_INST_CODE	VARCHAR2(25) null
	VARCHAR2(11) null

CLIENT_SID	CLIENT_BASIC
CREATE_DATE	DATE
STATUS	CHAR(3) not null
REASON_MASK	CHAR(10) not null
STATUS_DATE	DATE
SALUTATION	CHAR(4) not null
FIRST_NAME	VARCHAR2(20) not null
MIDDLE_NAME	VARCHAR2(20) not null
LAST_NAME	VARCHAR2(30) not null
NAME_MODIFIER	CHAR(2) null
ADDR1	VARCHAR2(30) not null
ADDR2	VARCHAR2(30) not null
CITY	VARCHAR2(20) not null
STATE_CODE	CHAR(2) not null
COUNTRY_CODE	CHAR(3) not null
COUNTRY_CODE	CHAR(3) not null
ZIP_CODE	CHAR(9) not null
HOME_PHONE_NUM	VARCHAR2(16) null
WORK_PHONE_NUM	VARCHAR2(16) null
FAX_PHONE_NUM	VARCHAR2(16) null
COMMENTS	VARCHAR2(255) null

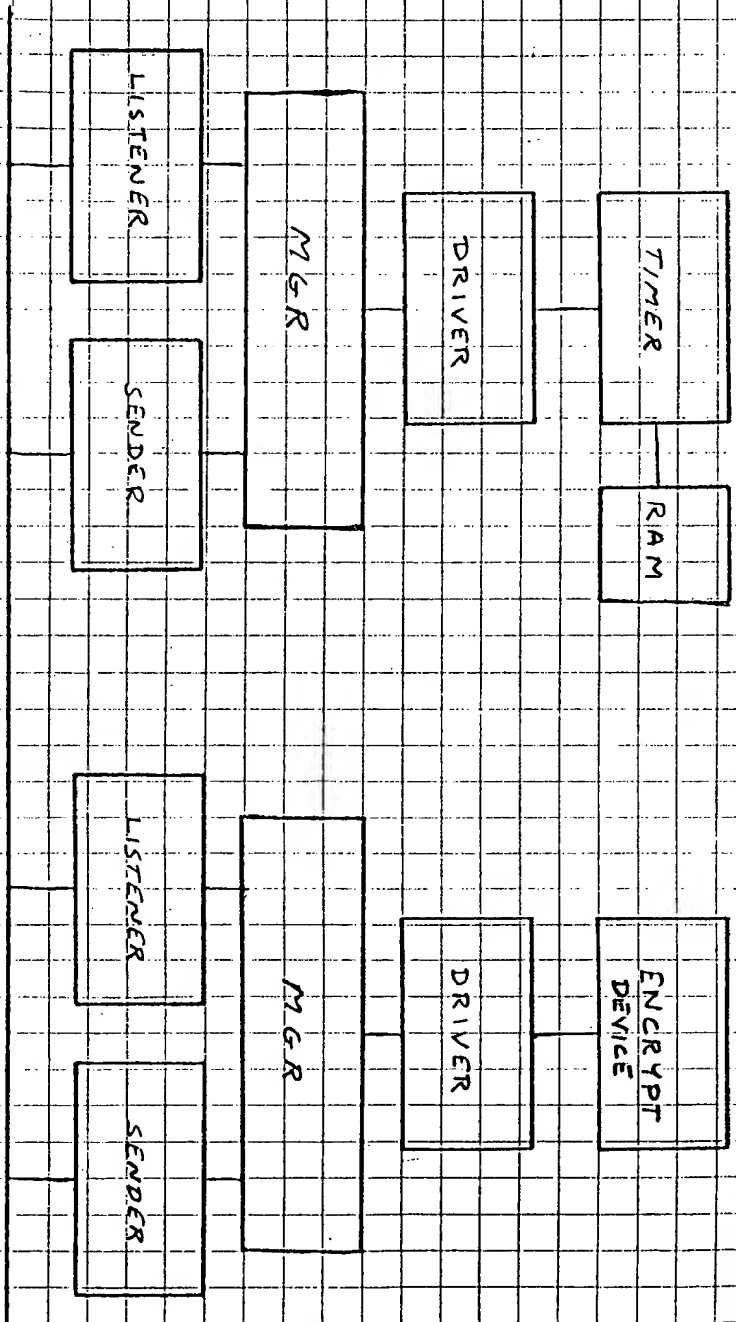


FIG 27

Fig. 28

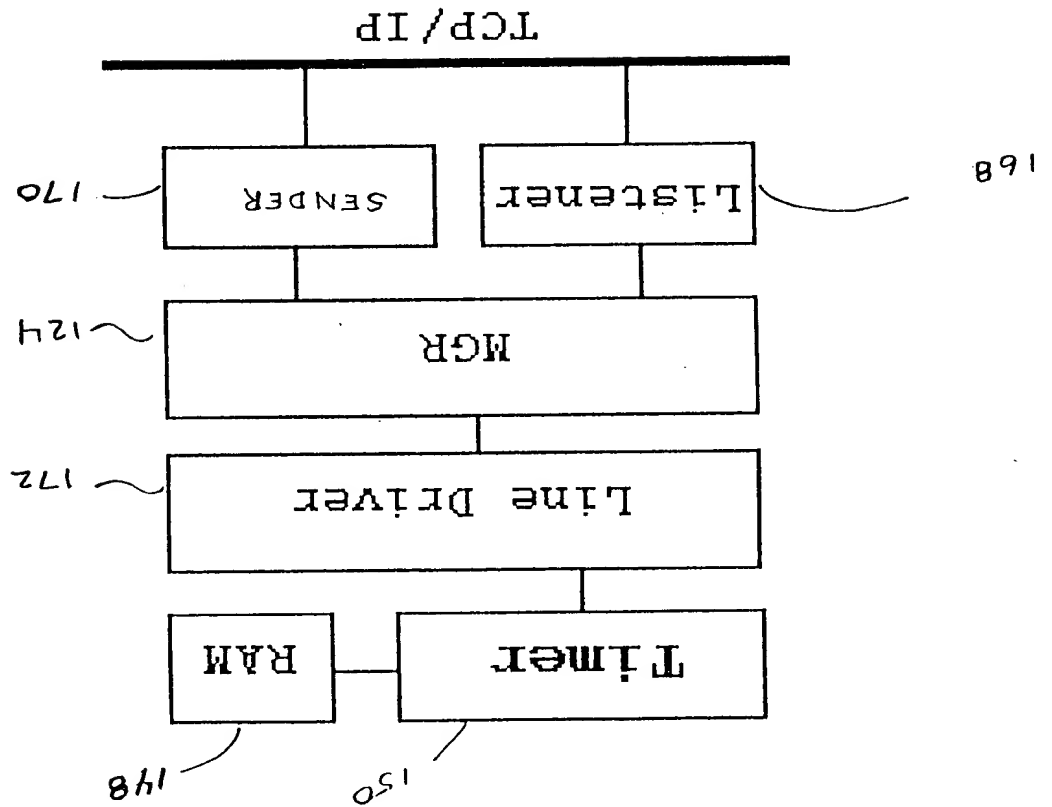


Fig 29

MSG_ROUTER			
LINE_SID	<pk>	NUMBER(6)	not null
NODE_SID	<pk>	NUMBER(6)	not null
INT_MSG_SID	<pk, fk>	NUMBER(6)	not null
SERVICE_SID	<fk>	NUMBER(4)	not null

SERVICE_SID = SERVICE_SID

SERVICE			
SERVICE_SID	<pk>	NUMBER(4)	not null
DESCRIPTION		VARCHAR2(30)	not null

model

SERVICE_SID = SERVICE_SID

SERVICE_PROVIDER			
SERVICE_SID	<pk, fk>	NUMBER(4)	not null
PATH_ORDINAL	<pk>	NUMBER(2)	not null
MPP_SID		NUMBER(6)	not null
PRIORITY		NUMBER(2)	not null

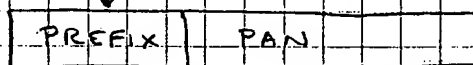
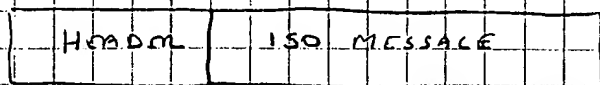
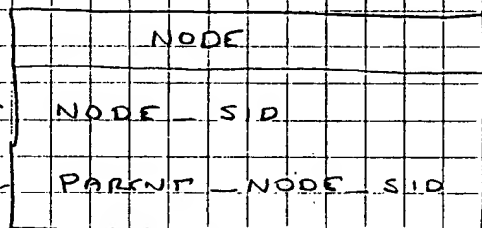
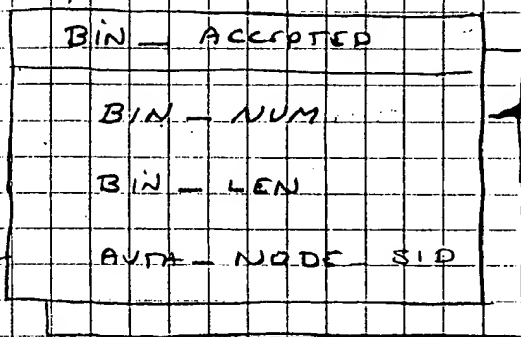


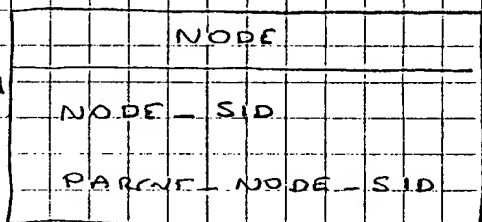
FIGURE 30

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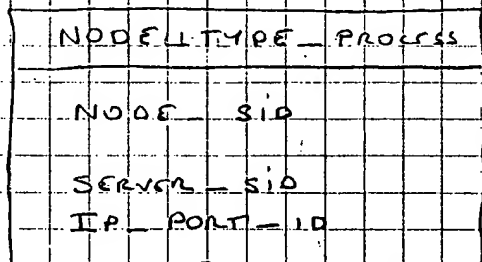
156

EXTERNAL NETWORK
(NODE - TYPE - TERM)



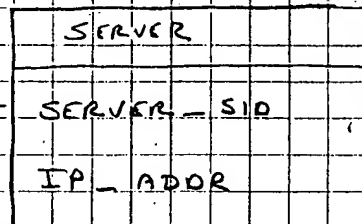
158

LINE DRIVER
(NODE - TYPE - LINE)



160

MGR
(NODE - TYPE - PROCESS)



162